



Natural Heritage & Endangered Species Program

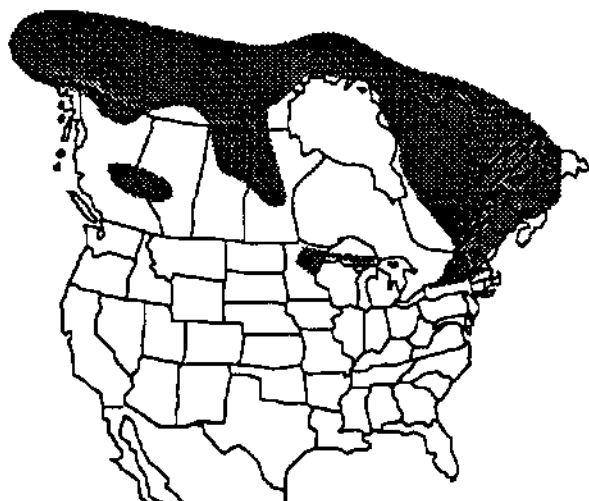
Commonwealth of Massachusetts
Division of Fisheries & Wildlife
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MASSACHUSETTS ENDANGERED PLANTS

SMOOTH WOODSIA (*Woodsia glabella* R. Br.)

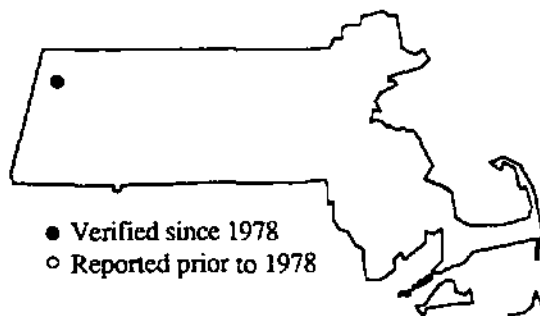
Description

Smooth Woodsia is a small, delicate fern in the family Aspleniaceae that grows in tufts from 2.5 to 16 cm (1 - 6 in.) in height. It is hairless or smooth all over. Its narrow fronds (leaves of a fern) are 8-14 mm (8/25 - 14/25 in.) wide, pale green, and linear to linear-lance shaped in overall outline. In addition, the fronds are only once pinnate: They are dissected (cut all the way back to the rachis, or main axis of the frond) just once, into divisions called pinnae. These trilobed pinnae occur in 8-14 pairs and are stalkless. The green rachis, is hairless. The stipe, or stalk of the frond, is green or yellowish, very slender, scaly only at its base and marked by a characteristic dark, thickened ring, or joint, near its base. Smooth Woodsia has distinctive, round clusters of spore-bearing structures called sori on the back of its fronds. Beneath each of these sori is a minute indusium (an outgrowth of the frond that covers or contains the sorus) which ruptures to form several radiating, hair-like arms. Fruiting occurs from early June through late August.



Documented Range of
Smooth Woodsia

Britton, H.L. An Illustrated Flora of the
Northern US & Canada. Dover, 1970
reprint of 1913 edition.



Massachusetts Distribution by Town

Range

Smooth Woodsia is characteristically a plant of arctic and subarctic regions of North America and Eurasia. In North America, its documented range extends from Newfoundland to Alaska, south to northern New Hampshire, northern Vermont, northwestern Massachusetts, New York, Ontario, Minnesota and British Columbia.

Similar Species

Like Smooth Woodsia, the more common Rusty Woodsia (*Woodsia ilvensis*) is a small, tufted plant which has a jointed stipe and grows on rock ledges. However, unlike Smooth Woodsia, its rachis and the under surface of its fronds are covered with dense, rust-colored hairs.

Habitat in Massachusetts

Smooth Woodsia is a plant of moist, calcareous rocks and cliffs. In Massachusetts, its sole location, discovered in 1984, is the small overhangs of a calcareous, moist cliff. This population occurs at an elevation of approximately 2,500 feet and is exposed to harsh weather. Growing here with Smooth Woodsia is Fragile Rock-brake (*Cryptogramma stelleri*).

Population Status

Smooth Woodsia is presently listed as "Endangered" in Massachusetts, where it has only one current station. The species is also considered rare in Maine, New Hampshire, Vermont, New York and Minnesota. One reason for the species rarity in the Commonwealth is the fact that Smooth Woodsia occurs only sporadically outside of arctic and subarctic areas. In Massachusetts, the plant is a relict of the Ice Age, and its southernmost outpost is in the Catskill Mountains of New York.